Visit many farms that raise cows, pigs or chickens today and you will find many, if not all, of the animals pumped full of antibiotics.

This disturbing trend has ominous implications for all of us – but especially those of us that eat any of that food.

The problem starts with farmers who are raising animals in closed, confined and often inhumane conditions. Because the animals are so closely packed together, they are liable to get sick and bacteria and illness is rampant.

As the sole Microbiologist in Congress, I have become increasingly concerned by the rise of antibiotic resistant diseases in the United States.

Two million Americans acquire bacterial infections during their hospital stay each year, and 70 percent of their infections are resistant to the drugs commonly used to treat them. As a result thirty-eight patients in our hospitals die from those infections every day. What's more, the cost of fighting resistant bacterial infections increases our country's health care price tag by $4 to $5 billion each year.

While overuse of antibiotics among humans is a cause for increasing resistance, widespread nontherapeutic use of antibiotics on livestock is a major cause of heightened resistance. Currently, seven classes of antibiotics certified by the Food and Drug Administration (FDA) as "highly" or "critically" important in human medicine are used in animal feed. Among them are penicillin, tetracyclines, macrolides, lincosamides, streptogramins, aminoglycosides, and sulfonamides. These classes of antibiotics are among the most important in our arsenal of defense against potentially fatal human diseases.

Despite their importance in human medicine, these drugs are routinely added to animal feed to

promote growth, compensate for often crowded and unsanitary conditions, and prevent diseases. Approximately 70 percent of antibiotics and related drugs produced in the US are given to cattle, pigs, and chickens.

Resistant bacteria can be transferred from animals to humans in several ways. Antibiotic resistant bacteria can be found in the meat and poultry that we purchase in the grocery store. In fact, A New England Journal of Medicine study conducted in Washington, DC found that 20 percent of the meat sampled was contaminated with Salmonella and 84 percent of those bacteria were resistant to commonly used antibiotics.

Bacteria can also be transferred from animals to livestock workers who handle animals, feed, and manure. Bacteria can also be transferred through our environment - nearly two trillion pounds of manure generated in the U.S. annually contaminate our groundwater, surface water, and soil. Since this manure often contains resistant bacteria, these bacteria can be passed to humans that come in contact with the water sources or soil.

This problem is well documented. A 2002 analysis of more than 500 scientific articles published in the journal Clinical Infectious Diseases found that "many lines of evidence link antimicrobial resistant human infections to foodborne pathogens of animal origin." The Institute of Medicine's 2003 report on Microbial Threats to Health concluded "clearly, a decrease in the inappropriate use of antimicrobials in human medicine alone is not enough. Substantial efforts must be made to decrease inappropriate overuse in animals and agriculture as well."

To address this problem I introduced the Preservation of Antibiotics for Medical Treatment Act (PAMTA). PAMTA would phase out the use of the seven classes of medically significant antibiotics that are currently approved for nontherapeutic use in animal agriculture.

In addition, PAMTA provides that if an antibiotic that is now used only in animals also becomes potentially important in human medicine, the drug would be automatically restricted from nontherapeutic use on livestock unless FDA determines that such use will not contribute to development of resistance affecting humans.

Lastly, to assist public health officials phase out the use of antibiotics in animal feed, PAMTA requires producers of agricultural antibiotics to report the quantity of drugs they sell, information

on the claimed purpose, and the dosage form of those drugs.

The solution to the problem of resistant bacteria is to reduce unnecessary antibiotic use and use these drugs prudently when required. While the full impact of resistant bacteria has yet to be seen, there is little doubt that the existence of antibiotic resistant diseases is a public health emergency that calls for a high priority response. PAMTA answers this call by safeguarding the effectiveness of antibiotics and public health in the United States.

Congresswoman Louise M. Slaughter represents the 28th Congressional District of New York. Slaughter is the first woman to chair the powerful House Rules Committee and the only microbiologist in Congress. Slaughter also holds a Master’s degree in Public Health.